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Parabolic equations with dynamical boundary conditions and source terms on interfaces

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We consider parabolic equations with mixed boundary conditions and domain inhomogeneities supported on a lower dimensional hypersurface, enforcing a jump in the conormal derivative. Only minimal regularity assumptions on the domain and the coefficients are imposed. It is shown that the corresponding linear operator enjoys maximal parabolic regularity in a suitable \$L^p\$-setting. The linear results suffice to treat also the corresponding nondegenerate quasilinear problems.

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